

Notice of Allowability

Application No.

09/960,413

Applicant(s)

HIROSE ET AL.

Examiner

Art Unit

Shay L. Balsis

1744

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 9/15/05.
2. ☒ The allowed claim(s) is/are 3, 5, 7, 14-19, 21, 22-23, 24 renumbered 2, 3, 4, 7-12, 1, 5-6, 13.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

Acknowledgment is made of applicant's claim for priority under 35 U.S.C. 119(a)-(d) based upon an application filed in Japan on 9/22/00. A claim for priority under 35 U.S.C. 119(a)-(d) cannot be based on said application, since the United States application was filed more than twelve months thereafter.

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

The application has been amended as follows:

Claim 23, line 3, before "a plurality" insert ---a substrate cleaning tool comprising---

Claim 24, line 1, delete "tool" and replace with ---apparatus---

Claim 24, line 2, before "a plurality" insert ---a substrate cleaning tool comprising---

REASONS FOR ALLOWANCE

The following is an examiner's statement of reasons for allowance:

Claims 21-24 all claim the limitations of a substrate cleaning tool, wherein the substrate is a semiconductor wafer or a LCD substrate glass. The tool comprises a plurality of thready members used to clean, wherein each member has a hollow channel. The members are attached to a body and the body has a cleaning liquid passage for supplying the cleaning liquid to the member. The members comprise a first group of member and a second group of members wherein the first group is longer than the second group. Additionally, member of the second

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group are disposed between the members of the first group. Claims 23 and 24 further claim the limitation of a scrub arm for holding the substrate cleaning tool.

The references of Bolton and Farquhar both teach hollow members however the references fail to teach a liquid supply as well as different length members. Additionally, the references teach a mop like apparatus and it would not be obvious to combine these references with other prior art to achieve an invention used to clean a semiconductor wafer or LCD substrate glass.

Belan (U'596) teaches hollow members attached to liquid supply however, the hollow members are not of different lengths nor is this device capable of being used to clean wafers or substrate glass.

Matsuda ('361) and Hirose et al. ('983 and '010) all teach a substrate cleaner with a liquid supply however, the references fail to teach thready members as the means for applying the cleaning liquid to the substrate. It would not have been obvious to one of ordinary skill in the art at the time the invention was made to combine references to achieve the claimed invention of a substrate cleaner with thready hollow members with alternating length since the prior art fails to teach substrate cleaners with hollow members that alternate in length.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."


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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shay L. Balsis whose telephone number is 571-272-1268. The examiner can normally be reached on 7:30-5:00 M-Th, alternating F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Kim can be reached on 571-272-1142. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Slb
9/23/05


JOHN KIM
SUPERVISORY PATENT EXAMINER